

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-021323**Date Inspected:** 03-Mar-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Zho Zhong Hai**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Orthotropic Box Girder(OBG)**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Manoj Prabhune was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

This QA Inspector randomly observed the following work in progress:

OBG # TRIAL ASSEMBLY YARD

DCP:

Segment 12BE ~ 12BE (Skin Flatness)

This QA Inspector performed Dimensional Inspection, to check the skin flatness between Segment 12BE~ 12BW between Panel Points (PP) 114 and PP 115.The skin flatness was measured on E3 Location (Bike Path Side at B1 and B2 locations) and E4 Location (Cross Beam side at B3 and B4 locations) at 100mm from the weld connecting Bottom Panel to Side Panel using 5000mm string line to verify overall flatness. The straight edges of 600mm and 630 mm of length were also used to measure the localized flatness.

The skin flatness was measured on E2 Location (Bike Path Side side at T1 location) and E 5Location (Cross Beam side at T2 location) at 100mm from the weld connecting Deck Panel to Edge Panel using 5000mm string line to verify overall flatness. The straight edges of 600mm and 630 mm length were also used to measure the localized

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flatness.

The measurements were recorded in the “OBG DCP Hand Measurement Survey: Skin Flatness 5M String Line, 600mm & 630 Straight Edge” on a separate form and submitted to the Lead Inspector for review.

Bay 19 (Bike Path)

This QA Inspector performed Dimension Control Inspection on the Bike Path bottom plate for flatness check across the longitudinal butt weld. Flatness check was performed on following mentioned Bike Path.

BK004A-001-018.

The QA Inspector measured the flatness using 600mm long straight edge across the Butt (CJP) weld.

Observed flatness within the allowable tolerance.

The result of the inspection was informed to Caltrans Lead Inspector Mr. Mark Miller and Mr. Hiranch Patel.

Segment 12BW~ 12CW

During a random visual inspection of 12BW~ 12CW, this Caltrans Quality Assurance Inspector observed the following issue:

- The Offset caused by welding measured approximately 15mm on the Side plate of 12BW.
- The Weld is identified as LD3022A-001-084, 085
- The LD Plate is identified as: LD3022A
- The distortion was measured using a 1000 straight edge.
- LD3022A is located on the Cross Beam Side of the segment
- This QA inspector observed ZPMC performing the cutting operation of weld joint LD3022A-001-084. This QA inspector reviewed the Welding Repair Report (WRR) B-WR 19623 prior to cutting apart weld joint LD3022A-001-084 to correct the distortion on the Stiffener. See attached photo for further details.

WELDING:

Segment Cross Beam 17

This QA Inspector observed ZPMC qualified welding personnel identified as 067752 perform Shielded Metal Arc Welding (SMAW), weld joint identified as CB3001A-017-016; located On Orthotropic Box Girder (OBG) Side Plate to Bottom Plate CJP Weld; ZPMC Quality Control (QC) is identified as Mr. Li Yang. This QA Inspector observed the base material appears to have been preheated by an electrical heating element prior to welding. ZPMC Quality Control (QC) Mr. Li Yang was onsite monitoring the welding variables. The welding variables recorded by QC appeared to comply with applicable WPS-B-P-2212-TC-U4b-FCM-1.

Segment 12BE

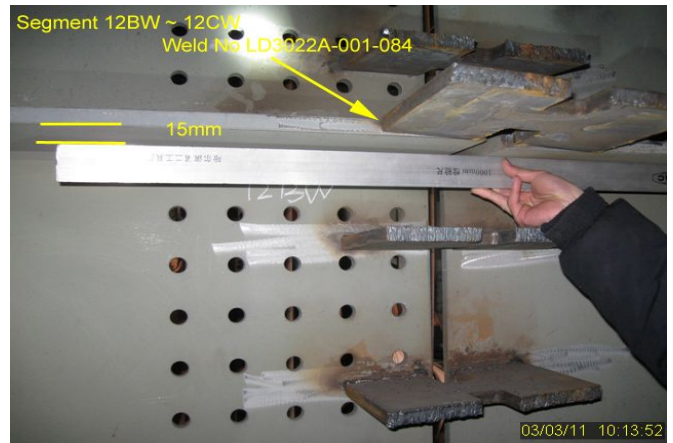
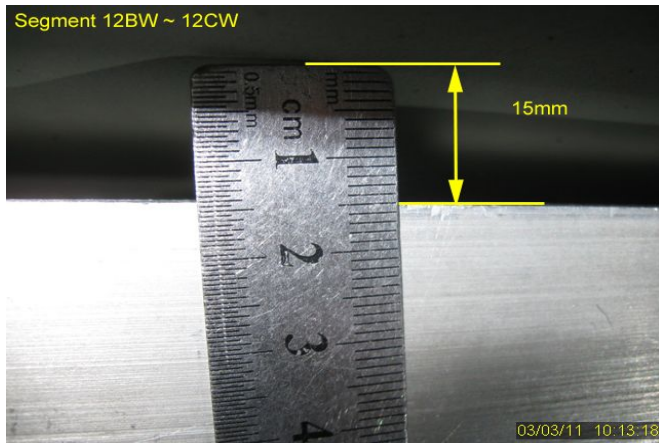
This QA Inspector observed ZPMC qualified welding personnel identified as 046709 perform Shielded Metal Arc Welding (SMAW), weld joint identified as OBW12A-002; located On Orthotropic Box Girder (OBG) Deck Plate to Deck Plate CJP Weld; ZPMC Quality Control (QC) is identified as Mr. Wang Zhu. The Critical Welding Repair Report (CWRR) was B-CWR2844. This QA Inspector observed the base material appears to have been preheated by an electrical heating element prior to welding. ZPMC Quality Control (QC) Mr. Wang Zhu was onsite monitoring the welding variables. The welding variables recorded by QC appeared to comply with applicable WPS-345-SMAW-1G (1F) FCM-Repair-1.

Unless otherwise noted, all work observed on this date appeared to generally comply with the applicable contract

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documents.



Summary of Conversations:

No significant conversations were reported on this date.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang phone: 15000422372, who represents the Office of Structural Materials for your project.

Inspected By:	Prabhune,Manoj
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Quality Assurance Inspector

Reviewed By:	Peterson,Art
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QA Reviewer
